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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,156	12/18/2001	David E. Fredericksen	13477	5773
44986	7590	02/07/2005	EXAMINER	
WELSH & KATZ, LTD. (ILLINOIS TOOL WORKS)			PARKER, FREDERICK JOHN	
120 S. RIVERSIDE PLAZA			ART UNIT	
CHICAGO, IL 60606			PAPER NUMBER	
			1762	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/025,156

Applicant(s)

FREDERICKSEN ET AL.

Examiner

Frederick J. Parker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11 and 15-21 is/are rejected.
- 7) ☒ Claim(s) 12-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5-5-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on 5/5/04 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 5/5/04 has been considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,5,14,17 are rejected under 35 U.S.C. 102(b) as being anticipated by Alchin WO99/54108.

Alchin teaches powder coating fiber reinforced plastic articles, the method comprising pre-heating the article to at least the melt temperature of the powder being applied (article temperature 110/150C or 230-302 F) and to remove moisture, e.g. essentially completely degas the article (P.3, 32-36); applying a polyester powder coating to the particle preheated to a

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temperature approximately that of the powder melting point so the powder engages and sticks to the article (since the temperature is taught to be at least the melt temperature of the powder being applied, adherence of powder to the article is due to softening or melting); and finally baking the powder coated articles to cause curing at 190-215C (375-419F), which meets the limitation of being at least 375F and between curing/ cross-linking temperature and melting point of the article, which is explicitly cited to have no appreciable deformation (page 4, 8-10). Subsequent cooling is inherent to provide the coated article with utility. The article is not grounded during the process. As to claim 17, articles are supported on a conveyor without regard to grounding.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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7. Claims 6,8-11,15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alchin.

Alchin is cited for the same reasons previously discussed, which are incorporated herein. Per claim 15, the article preheating temperature of Alchin (230-302 F) overlaps that of the claim (220-250F). The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made if the overlapping portion of the temperatures disclosed by the reference were selected because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Wortheim* 191 USPQ 90. Similarly, curing may be carried out at about 400F. Since the process temperatures of Alchin and claims are the same or overlap, and Alchin is not limited as to specific polyesters, the teachings would have reasonably suggested any polyester powders in the process ranges, such as carboxyl polyester.

As to claims 6, 8-11, & 16, the application of plural layers of coatings to an article using the same or similar process conditions would have been an obvious variation to provide an article of a sufficient or desired thickness for any intended use.

8. Claims 2-4, 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alchin in view of Leach US 5338578.

Alchin is cited for the same reasons previously discussed, which are incorporated herein. While Alchin teaches a cleaning booth 11 prior to pre-heating and coating, the nature of the cleaning is not cited.

Leach teaches applying powder coatings (including polyesters) to reinforced plastics, including compression and injection molded plastics, in which it is taught on col. 4, 61-68 to

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powder wash articles surfaces to be coated and then heating at about 150-300 F, preferably 180-250F, which are below the melting temperature of the article per claims 2-4. Similarly, curing may be carried out at about 400F. Since the process temperatures of Alchin and claims are the same or overlap, and Alchin is not limited as to specific polyesters, the teachings would have reasonably suggested any polyester powders in the process ranges, such as carboxyl polyester.

As to claims 18-19, Alchin teaches coating reinforced plastics, and Leach teaches such reinforced plastics may be formed by injection molding and be successfully polyester powder coated. Hence it would have been obvious to carry out the process of Alchin on plastic injection molded (IM) plastic articles because of the expectation of successfully powder coating IM articles, since there is simply no reason to expect that the mode of processing would have affected the coating process.

As to product claims 20-21, since the claimed process is obvious over Alchin in view of Leach, it would have been expected that the products of claims 20-21 would have also been obvious and possess the same properties and structural elements.

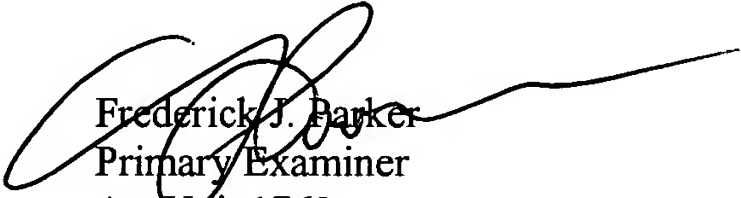
9. Claims 12-14 which require the use of electrostatic powder application, distinguish over the prior art because Alchin teaches away from electrostatic powder coating on page 1, 8-11 and page 3, 13-14. Claims 12-14 are objected to for depending from a rejected base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 571/272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp